theory has long had possession of men's minds, is sustained by a great weight of authority, and for years had almost undisputed sway in some parts of Europe. If it be an error, it can only be rooted out by a great amount of forcible experimental evidence ; a fact sufficiently clear to my mind by the circumstance, that De la Rive's papers have not already convinced the workers upon this subject. Hence the reason why I have thought it needful to add my further testimony to his and that of others, entering into detail and multiplying facts in a proportion far beyond any which would have been required for the proof and promulgation of a new scientific truth (1005). In so doing I may occasionally be only enlarging, yet then I hope strengthening, what others, and especially De la Rive, have done.

788. It will tend to clear the question, if the various views of contact are first stated. Volta's theory is, that the simple contact of conducting bodies causes electricity to be developed at the point of contact without any change in nature of the bodies themselves; and that though such conductors as water and aqueous fluids have this property, yet the degree in which they possess it is unworthy of consideration in comparison with the degree to which it rises amongst the metals.[1] The present views of the Italian and German contact philosophers are, I believe, generally the same, except that occasionally more importance is attached to the contact of the imperfect conductors with the metals. Thus Zamboni (in 1837) considers the metallic contact as the most powerful source of electricity, and not that of the metals with the fluids;[2] but Karsten, holding the contact theory, transfers the electromotive force to the contact of the fluids with the solid conductors.[3] Marianini holds the same view of the principle of contact, with this addition, that actual contact is not required to the exertion of the exciting force, but that the two approximated dissimiliar conductors may affect each other's state, when separated by sensible intervals of the r?riyo -fidth of a line and more, air intervening.[4]

789. De la Rive, on the contrary, contends for simple and strict chemical action, and, as far as I am aware, admits of no current in the voltaic pile that is not conjoined

with and depen-
dent upon a complete chemical effect. That admirable elec-
trician Becquerel, though expressing himself with great caution,

[1] *Annales de Chimie,* 1802, xl. p. 225.
[2] *Bibliotheque Unwerselle,* 1836, v. 387; 1837, viii. 189.
[3] *1'Institut^* No. 150.
[4] *Mem. della Soc. Ital. in Modena,* 1837, xxi. 232-237.